

Amendments to the Abstract:

Please replace at the abstract with the following amended abstract:

A process of production for producing a high strength galvannealed steel sheet by a hot-dip galvanized steel sheet production equipment using an all radiant tube type annealing furnace and a production equipment for the same are provided, comprising continuously hot-dip galvanizing a high strength steel sheet having a content of Si of 0.4 to 2.0 wt % during which making the atmosphere of the reducing zone an atmosphere containing H₂ to 1 to 60 wt % and comprised of the balance of N₂, H₂O, O₂, CO₂, CO, and unavoidable impurities, controlling the log (PCO₂/PH₂) of the carbon dioxide partial pressure and hydrogen partial pressure in the atmosphere to log (PCO₂/PH₂) ≤ -0.5 and the log (PCO₂ H₂O/PH₂) of the water partial pressure and hydrogen partial pressure to log (H₂O/PH₂) ≤ -0.5, and controlling the log (P_T/PH₂) of the total partial pressure P_T of the carbon dioxide partial pressure PCO₂ and water partial pressure PH₂O and the hydrogen partial pressure to -3 ≤ log (P_T/PH₂) ≤ -0.5.